

DON'T BE A DUMMY ABOUT BACK SAFETY

This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation. Featured are:

INTRODUCTION: A brief description of the program and the subject that it addresses.

PROGRAM OUTLINE: Summarizes the program content. If the program outline is discussed before the video is presented, the entire program will be more meaningful and successful.

PREPARING FOR AND CONDUCTING THE PRESENTATION: These sections will help you set up the training environment, help you relate the program to site-specific incidents, and provide program objectives for focusing your presentation.

REVIEW QUESTIONS AND ANSWERS: Questions may be copied and given to participants to document how well they understood the information that was presented. Answers to the review questions are provided separately.

ATTENDANCE RECORD: Document the date of your presentation as well as identify the program participants. The attendance record may be copied as needed.

INTRODUCTION

Preventing back pain begins with a good safety attitude and thinking about personal safety before performing each lift. Safe lifting techniques, team lifting methods for heavy objects and using assist devices are all effective methods that keep the spine healthy and free from injury.

In this video, employees (and "dummies") return to work for Back Safety Awareness Day. Our dummies suffer several painful back injuries despite the company's effort to make employees aware of the actions they can take to prevent them. Embedded in these injuries is a message to viewers: back injuries don't happen to dummies; they happen to real people who ignore basic back safety practices.

Topics include components of the spine, causes of back injuries, back strains and sprains, and the importance of exercise and posture in maintaining a healthy back.

PROGRAM OUTLINE

COMPONENTS OF THE BACK

- The spine is made up of cylindrical bones called vertebrae. The vertebrae are stacked on top of each other to form the spinal column.
- Between each vertebra is a disc. The discs have a jelly-like center that act as padding to absorb the impact of lifting, standing and sitting. They also allow lots of space between the vertebrae for nerves to run in and out of the spinal cord.
- The combination of vertebrae and discs with muscles and ligaments form a strong but flexible vertical framework that supports our body.

HOW BACK INJURIES OCCUR/LEVER PRINCIPLE

- Improper lifting techniques and poor posture put stress on individual parts of the spine, which can wear out or become damaged.
- The closer a load is kept to the body, the more the force of the lift is distributed vertically up and down the spine. Holding the load away from the body, especially with the back bent, causes most of the force to be placed on just a few discs.

- These discs are severely pinched between the overloaded vertebrae. This can cause the discs to wear out and even rupture.
- Our backs work like levers. Unfortunately, we place 100 pounds of force on our back in order to lift 10 pounds because we are operating from the short end of the lever.
- To make matters worse, such things as holding the load farther out from our bodies and bending from the waist rather than squatting causes the lever arm to get longer and even more force to be applied to the structure of the lower back.
- This type of bending and lifting puts so much strain and pressure on the disks and vertebrae that eventually something will wear out, break or snap.

RUPTURED DISCS AND PINCHED NERVES

- Twisting and turning while lifting can cause the discs to be ground between the vertebrae. This places great strain on the discs and can lead to a rupture.
- A disc rupture can cause the vertebrae to rub against one another, bone to bone. The space between the vertebrae goes away and the nerves become painfully pinched.
- The disc may also bulge, placing additional pressure on the nerve.
- In addition, the weakened disc causes unbalanced loading of the discs and vertebrae above and below the affected area. The whole framework of the spine is left in an unstable and painful condition.
- Many back problems are caused by a gradual degeneration of the discs rather than one traumatic injury. This is important to remember because when you first start lifting incorrectly, you won't feel any pain or know anything is wrong.

SAFE LIFTING TECHNIQUES

Plan the Lift

- You should determine if you can safely lift an object by yourself before lifting. If you decide that you don't need assistance, you should then examine the path to your destination and remove any slipping or tripping hazards.
- Make sure you can make it through narrow passageways and doorways with the load without damaging the load or your fingers.
- Remove any sharp protruding objects such as screws or nails before lifting. Protect yourself against any sharp edged or rough materials by wearing leather or heavy cloth gloves when needed.

Executing the Lift

- When preparing to lift the load, plant your feet about shoulder-width apart and bend your knees. Center your body weight over your feet.
- Get as close to the load as possible while maintaining your spine's natural curve. Pull in your abdominal muscles to help support the back.
- Get a good grip on the object and bring it close to your body. Keep your elbows in close to your body.
- Rise slowly and allow your legs to do the lifting. We have all heard it time and time again, but solid safety advice stands the test of time: lift with your legs, not your back.

Traveling with the Load

- When traveling with the load, keep it close to your body and make sure that you can see over it.
- Face the direction of travel and avoid any twisting or bending motion.

Setting Down the Load

- When setting down the load, reverse the steps used for lifting. Be careful not to smash your fingers under the load when you release it.

OTHER SAFE LIFTING TECHNIQUES

- If an object to be lifted is located above your shoulders, use a step stool or sturdy ladder to reach it. Get as close to the load as possible and slide it towards you. Remember to do all the work with your arms and legs, not your back.
- Loads that are under racks and cabinets can also cause problems. Pull the load toward you, then support it on one knee before you lift. Use your legs to power the lift.

BACK STRAINS/SPRAINS

- Back strain is a general term used for a pulled or torn muscle.
- A back sprain refers to stretched or torn ligaments.
- The same types of poor lifting practices we discussed earlier can lead to these ailments.

EXERCISE

- Experts on spinal health and back injuries agree that exercise is effective in preventing back pain.
- Often a sedentary lifestyle leads to a weakening of the large muscles of the back and abdomen. Lack of exercise leaves muscles and ligaments in the back with limited flexibility and vulnerable to a strain or sprain.
- To avoid these problems, consult your physician about specific exercises and stretches to keep your back flexible and strong.
- Stretches performed after lifting are also helpful in reducing stiffness.

POSTURE

- The health of your back depends on your ability to maintain a neutral posture. When you assume a neutral posture, your body will find its natural balance and avoid overly stressing the components of the back.

Sitting

- When sitting, neutral posture includes sitting with your ankles, knees, thighs and elbows at right angles. You should keep your head balanced naturally over your shoulders and not protruding in front of your body. Also, keep your shoulders relaxed and not hunched.
- Choose a chair that offers support to the lumbar region of the spine. You don't really need a fancy multi-adjustable chair to accomplish this. A simple support cushion placed between your chair and lower back will help you maintain the correct posture.
- When using computers, make sure you do not have to stretch forward to reach the keyboard or to read the monitor.

Standing

- When standing, you need to keep your spinal column aligned in its natural “S” curve. If you must stand for long periods, propping one foot on a stool reduces stress on your lower back.
- Don’t force your body to conform to the workspace. If you make a habit of using poor posture, you will be more prone to back pain.

Driving

- Don’t forget good posture when you leave work. When driving, use a firm seat or a padded pillow for low back support. Sit close to the wheel with your knees bent.
- Drive your car just like you work at a desk. Sit up straight and don’t slump forward. Driving is stressful enough as it is; don’t add to it with poor posture.

RESPONDING TO BACK PAIN

- No matter how any back pain you suffer has been caused, you should take action to remedy the problem as soon as possible.
- Bed rest is not a cure for back pain. When you experience a backache, you should remember to stay active, using good posture and body movements. Extended rest only makes muscles weaker and less flexible.
- If you have severe pain or any concern about the extent of a back injury, consult a physician immediately. Some symptoms that require the care of a physician include back pain compounded by leg numbness or weakness, periods of pain lasting three or more days and back pain accompanied by other health problems such as fever, chills or vomiting.

CONCLUSION

- Keep in mind that back injuries don’t actually happen to dummies, they happen to real people like you.
- Do everything you can to ensure your back stays strong and healthy.

PREPARE FOR THE SAFETY MEETING OR TRAINING SESSION

Review each section of this Leader's Guide as well as the videotape. Here are a few suggestions for using the program:

Make everyone aware of the importance the company places on health and safety and how each person must be an active member of the safety team.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline.

Copy the review questions included in this Leader's Guide and ask each participant to complete them.

Copy the attendance record as needed and have each participant sign the form. Maintain the attendance record and each participant's test paper as written documentation of the training performed.

Here are some suggestions for preparing your videotape equipment and the room or area you use:

Check the room or area for quietness, adequate ventilation and temperature, lighting and unobstructed access.

Check the seating arrangement and the audiovisual equipment to ensure that all participants will be able to see and hear the videotape program.

Place or secure extension cords to prevent them from becoming a tripping hazard.

CONDUCTING THE PRESENTATION

Begin the meeting by welcoming the participants. Introduce yourself and give each person the opportunity to become acquainted if there are new people joining the training session.

Explain that the primary purpose of the program is to help employees to understand that they can prevent back injuries by maintaining a good safety attitude and thinking about personal safety before performing each lift along with exercise and good posture.

Introduce the videotape program. Play the videotape without interruption. Review the program content by presenting the information in the program outline.

Lead discussions about back injuries that have occurred at your facility or job tasks that could lead to them and how these injuries can be prevented. Use the review questions to check how well the program participants understood the information.

After watching the videotape program, the viewer will be able to explain the following:

- How poor lifting techniques lead to painful back injuries;
- How to safely plan the lift, execute the lift, travel with the load and set down the load;
- How exercise and good posture can aid in preventing back pain;
- How to respond to back pain.

DON'T BE A DUMMY ABOUT BACK SAFETY
REVIEW QUESTIONS

Name _____ Date _____

The following questions are provided to check how well you understand the information presented during this program.

1. The component of the back that has a jelly-like center and absorbs impacts to the back is known as a _____.
 - a. vertebra
 - b. disc
 - c. spinal cord
 - d. ligament

2. How many pounds of force are put on our backs to lift a 10 pound load?
 - a. 5 pounds
 - b. 10 pounds
 - c. 50 pounds
 - d. 100 pounds

3. Your back muscles can become weak due to lack of exercise.
 - a. true
 - b. false

4. What should you do if you suffer a mild backache that you feel doesn't warrant consulting a physician?
 - a. stop all physical activities except for work
 - b. take two or three days of bed rest
 - c. stay active including good posture and body movements

5. If you don't feel immediate pain when beginning to lift something, you are not at risk of suffering any back problems.
 - a. true
 - b. false

6. When setting down a load, you should _____.
 - a. bend at the waist and release the load on the ground
 - b. move the load away from the body then squat to set it down
 - c. reverse the same steps used for lifting

7. The health of your back depends on your ability to maintain a _____ posture.
 - a. neutral
 - b. positive
 - c. negative

ANSWERS TO THE REVIEW QUESTIONS

1. b

2. d

3. a

4. c

5. b

6. c

7. a